

increase. The patients who proved refractory to this form of treatment had received recent systemic therapy with triamcinolone.

Chronic Eczema and Pompholyx of Hands.—It was found that cases falling into this category required full-strength fluocinolone or triamcinolone ointments or cream applied generously under polythene gloves made airtight at the wrist to achieve a good result. The one-tenth strength fluocinolone cream, which works well with thin plaques of psoriasis, produced no benefit or made the patient worse. Six of the cases which did well and remained in a comfortable state were using the gloves and cream once or twice weekly. The cases that showed the best response were those with a fissured eczema of the palms and fingers. Only one case of true pompholyx with frank vesicles on the hands and fingers was benefited. Four other cases of pompholyx worsened; two of these had discontinued systemic steroid therapy within a month of starting the new treatment and it was to be expected, on this account, that they might prove refractory to local treatment.

Atopic Dermatitis.—Three adults and four children were treated and within three days lichenified patches affecting the antecubital and popliteal fossae, and lichenified patches on the wrists, showed a striking response with cessation of itching. The one case where treatment was stopped was due to the development of boils under the dressings, though here there was initial improvement so far as the disappearance of his lichenified and eczematous patches were concerned. The most gratifying case was that of a West Indian negro child with exudative patches on his face. One week of in-patient treatment with four-hourly inunction of triamcinolone cream produced little improvement. A dramatic response was noted within 24 hours of applying the same cream under a polythene mask which covered the cheeks only. He relapsed on return home, as his mother had neither the time nor the patience to continue with the treatment.

Lichen Simplex Chronicus.—There was good response in all cases, with uniform flattening of the lesions. The results achieved were better than those that might have been expected from intralesional injection with triamcinolone.

Pustular Bacterid of Soles of Feet.—Small polythene bags were used, made airtight around the ankles with scotch tape. All cases had been under treatment for over a year; some had received local triamcinolone by injection and x-ray therapy. All the cases, save one, showed a 70–90% resolution of their lesions within a week. The vesico-pustules desiccated and the surrounding eczematized skin became pink and glazed. One woman doctor patient said that it was the only treatment which had helped her in ten years.

Miscellaneous Group.—This group comprised three cases of chronic discoid eczema, two cases of lichen planus hypertrophicus, two cases of keratosis pilaris, and one case of ichthyosis simplex. Their response to the polythene technique was in contrast to their relative lack of response to the same local preparation applied without the polythene covering.

COMMENT

A period of three months is too short a time to state that any new dermatological therapeutic regime is a definite advance over well-tried and established methods. The results achieved from the use of fluocinolone and

triamcinolone acetonide cream and ointment used in conjunction with occlusive polythene dressings suggest, however, that this combination has a place in the management of certain recalcitrant dermatoses. It should be understood that, though this form of treatment may achieve rapid symptomatic benefit, it is no more curative than existing therapeutic regimes. The length of effective remission is variable and some cases relapse sharply on discontinuing the polythene dressings; inevitably a few cases proved disappointing when a good result was anticipated.

The efficacy of this treatment technique may be due to the fact that the occlusive polythene film enhances the action of local steroid preparations by preventing their being rubbed away by clothing and bed-linen; in addition sweat retention may cause maceration of the epidermis and so increase the absorption of the medicament.

Patient acceptance is high because the method is clean and can show a rapid beneficial result. Polythene occlusion of widespread areas in hot weather is uncomfortable though few patients discontinue on this account. Primary irritant and traumatic dermatitis from the cellophane tape has proved more of a hazard than reactions beneath the actual dressings. The method is relatively economic in the use of expensive medicaments and especially so if the standard topical applications are diluted to one-tenth their usual strength in a suitable base.

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Medical Memoranda

Supernumerary Mammary Gland in the Vulva

Supernumerary mammary glands are chiefly found between the axilla and the groin along the embryological "milk-lines." Of the 430 cases recorded by Deaver and McFarland (1918), 90% were located in the axilla, chest, or abdomen, the remaining 10% being scattered throughout other parts of the body. In only one instance was the vulva the seat of this malformation. Fifteen other cases of vulval involvement have been reported in the literature (see Table). The present report brings the total number of known cases to 17.

CASE RECORD

A Chinese woman aged 33, the mother of four children, was seen at the gynaecological clinic complaining of a lump at the vulva of one year's duration. She gave no history of associated discharge or pain but was worried because the mass had been increasing in size since she became pregnant four months previously. Her four other pregnancies had resulted in normal deliveries at term, the youngest child being 2 years old. All her babies had been breast-fed.

The patient was a healthy adult with normally developed breasts. There were no lumps or pigmented structures anywhere to suggest the presence of supernumerary mammary glands or nipples. The uterus was about 18 weeks

pregnant. Arising from the left labium majus was a pedunculated ovoid mass, not warm or tender, the size and shape of a hen's egg (Fig. 1). The skin moved freely over

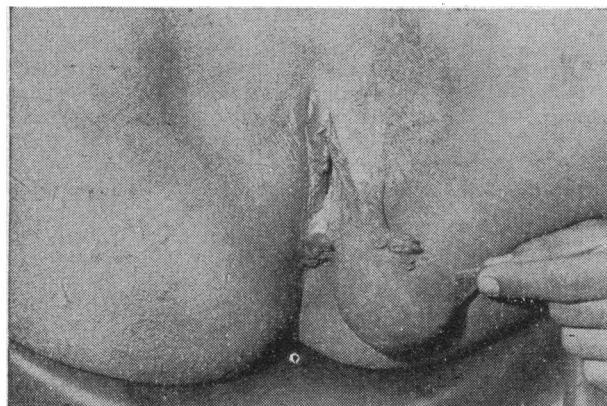


FIG. 1.—Gross appearance of mammary gland on the left labium majus.

the underlying mass, which had a firm rubbery and knobby feel. The mass was excised and the wound closed with four nylon sutures. Convalescence was uneventful.

PATHOLOGICAL REPORT

Gross.—The specimen consisted of a lobulated and encapsulated mass of tissue measuring 7 by 5 by 3 cm. It was covered on one side by skin which was folded and rugose, and showed no evidence of any pigmented areola or nipple. The cut surface showed several firm yellowish-white nodules 0.5–2 cm. in diameter, separated by fibrous connective tissue.

Microscopical Examination.—Sections showed glandular lobules consisting of alveoli and intralobular ducts surrounded by pale intralobular connective tissue of loose texture (Fig. 2). The alveoli were lined by cubical epithelium, had an outer layer of flattened myoepithelial cells, and occasionally exhibited eosinophilic fluid in their lumina; the intralobular ducts were lined with two layers of cubical epithelium. The intralobular connective tissue, in which fibroblasts, plasma cells, and lymphocytes were identified, was sharply differentiated from the relatively acellular interlobular connective tissue, which was composed of coarse-textured fibrous stroma containing a few fat cells. Larger ducts, lined either by stratified squamous epithelium or by two layers of columnar epithelium, were present in the interlobular connective tissue, but they had no demonstrable communication with the overlying skin. Microscopically, the structure was characteristic of mammary gland in a state of activity.

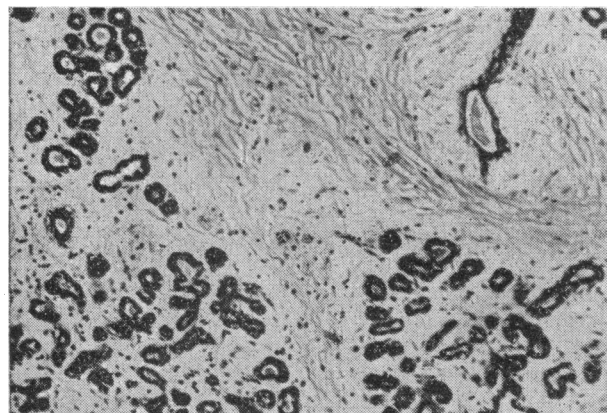


FIG. 2.—Ectopic mammary gland showing lobules composed of glandular and ductal elements in intralobular connective tissue of loose texture; some of the glandular lumina contain secretion. (H. and E. $\times 75$.)

THEORIES OF CAUSATION

Schultze (1892) described a pair of band-like ectodermal thickenings in mammalian embryos running diagonally along the ventrolateral body wall from the axillary to the pubic region which he called "milk-lines." In the course of normal development these lines undergo fragmentation to form a series of ectodermal accumulations which he called "*Anlagen*," or rudiments of future mammary glands. The number of *Anlagen* is always in excess of requirements. In the next stage the redundant *Anlagen* are suppressed, while certain others, whose number and location are determined by the phylogenesis of the mammal in question, are retained to form the future breasts. In man, one on each side at the level of the fourth rib remain, to give rise later to paired pectoral breasts. Incomplete suppression of redundant *Anlagen* leads to the appearance of supernumerary breasts, which may be located anywhere along the milk-lines on one or both sides.

Deaver and McFarland (1918) demonstrated a strong hereditary factor in the causation of supernumerary breasts. According to Darwin's theory, the anomaly may be regarded as an atavistic or reversionary manifestation, in which, for some obscure reason, a remote ancestral characteristic unexpectedly makes its appearance. Since the breasts in Cetacea (whales, dolphins, porpoises) are normally located at the vulva, the presence of vulval breasts in man appears to support this atavistic theory. This, however, does not adequately explain the occurrence of mammae in those unusual sites reported by Deaver and McFarland, such as the neck, face, ears, arms, legs, and buttocks. In these awkward situations the anomaly may be attributed to misplacement of embryonic mammary *Anlagen* or to mammary differentiation of apocrine sweat glands.

COMMENT

Vulval breasts, although congenital in origin, do not as a rule attract attention until they become enlarged or active at the time of puberty or in association with pregnancy and lactation. At times the aberrant glands may remain quiescent and unnoticed throughout puberty and repeated pregnancies, as in the present case. The patient had gone through four successful pregnancies and had breast-fed all her children. It was not until one year after her fourth confinement that she discovered a pea-sized mass in the left labium majus which began to enlarge in the present pregnancy. Other authors have reported similar instances of vulval breasts first appearing in the third pregnancy (Bell, 1926; McFarland, 1931) and in the fourth (Mengert, 1935).

Supernumerary Breast Tissue in the Vulva

No.	Author	Vulval Involvement	Remarks
1	Crumpe (1854) ..	Unilateral	Sarcoma
2	Hartung (1872) ..	"	Secreting "milk"
3	Blasio (1905) ..	Bilateral	Developed at puberty, enlarged with pregnancy
4	McGee (1925–6) ..	Unilateral	Abcess
5	Bell (1926) ..	"	Discovered in 3rd pregnancy, discharging milky fluid
6	Purves and Hadley (1927)	Bilateral	Enlarged with pregnancy, discovered
7	McFarland (1931) ..	Unilateral	Discovered in 3rd pregnancy
8	Friedel (1932) ..	"	Fibroadenoma
9	Bergner (1934) ..	"	Milk cyst
10	Mengert (1935) ..	Bilateral	Discovered in 4th pregnancy. Enlarged in puerperium
11	Greene (1936) ..	"	Adenocarcinoma
12	Fisher (1947) ..	Unilateral	Fibroadenoma
13	Siezier and Gordon (1951)	"	"
14	Hendrix and Behrman (1956)	"	Adenocarcinoma
15	Looney <i>et al.</i> (1959) ..	Bilateral	Discovered in 3rd pregnancy

From the articles reviewed it is clear that vulval breasts are capable of behaving in the same way as normally situated breasts. They respond to hormonal influences at puberty, in the menstrual cycle, and during pregnancy and lactation; a milky discharge was reported by Hartung (1872) and Bell (1926). Complications common to normal breasts may also be encountered, such as abscess (McGee, 1925-6) and milk-cyst formation (Bergner, 1934). Neoplastic change, both benign and malignant, may supervene. Fibroadenoma has been described by Friedel (1932), Fisher (1947), and Siegler and Gordon (1951), and adenocarcinoma by Greene (1936) and Hendrix and Behrman (1956).

While vulval breasts serve no useful function in man they are a potent source of disease. Therefore, when discovered they should be promptly removed.

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Uterus Presenting in an Inguinal Hernia of a Male Subject

A great variety of organs have been found in indirect inguinal hernial sacs. The following case is worth reporting because of the presence of a fully formed uterus complete with fallopian tubes in such a situation in a subject to all purposes a male.

CASE REPORT

The patient, aged 25, unmarried, was admitted to the Lala Lajpat Rai Hospital on December 21, 1957, with the pre-operative diagnosis of a left indirect inguinal hernia and non-descent of the right testis. No doubt was cast on the sex of the patient. On the left side there was a testicle, which could, however, be reduced along with the contents of the sac into the abdominal cavity. It was noticed that a firm pear-shaped object descended with the hernia at times. Needless to say, the true nature of this object was discovered only at operation. The scrotum was fully developed but was empty on the right side.

At operation on January 13, 1958, the inguinal canal was opened through a left ilio-inguinal crease incision. The sac was found to surround the entire testis as in a completely patent processus vaginalis but with the difference that the testis and cord were lying free in the sac and reduced easily into the abdominal cavity. The pear-shaped object noticed clinically was soon encountered, and to our surprise was found to be a well-developed uterus complete with fallopian tubes. This discovery brought us to the question of the

other gonad and of course to the sex of the patient. Slight traction on the last two objects soon produced the other gonad, which resembled the first. The relationship of the uterus with the two gonads resembled that of a uterus with its two ovaries, except that all three possessed long mesenteries which enabled them to descend into an inguino-scrotal hernia. No other gonads were found. On closer scrutiny the gonads were found to be the size of normal testes but possessing neither epididymis nor vas deferens. There was a well-developed vascular pedicle. The uterus had a well-developed body and fundus but the cervical portion was practically absent. The fallopian tubes were of normal length and calibre and had well-developed fimbriated ends. There was a long mesentery.

Rectal examination revealed a normal prostate gland, but one could not be sure about the seminal vesicles.

A piece of tissue was taken for histological examination from one of the glands. The inguinal canal was closed after excising the sac and repositioning the contents into the abdomen. It was decided not to remove the uterus. It was not possible to retain the left testicle in the scrotum because this would have had to be done at the cost of a weak inguinal mechanism. The slight risk of retained testes was overlooked—one being intra-abdominal and the other intermittently so.

The patient made an uneventful recovery with sound healing of the hernial repair. The histological report was as follows: "One small piece received whole has been sectioned. The ovoid piece of tissue consists of a collection of seminiferous tubules. These tubules are lined by one or two layers of cuboidal cells and not showing evidence of spermatogenesis. The interstitial tissue shows a few collections of Leydig cells. No ovarian tissue can be made out. Diagnosis: hypoplastic testes."

COMMENT

Further inquiry showed the patient to be a potent male with a good ejaculate. In this connexion it might be useful to say something about the differentiation of sexes. With the recent advances in the study of sex chromatin the true determination of sex is made by studying the nuclear chromatin of epidermal cells.¹ The sex of a foetus can therefore be determined even before the differentiation of the gonads²: castrated foetus tends to develop on the female lines irrespective of its genetic structure. It is the differentiation of the testes that keeps these basic traits in check and superimposes male characters. Then, again, it is common to see vestigial remnants of the Müllerian system in the male, but they never proceed to such a degree of differentiation. Various types of male pseudohermaphroditism may be explained on the basis of the time of onset and the degree of such testicular influences. A nuclear chromatin study was done on our patient. Tissue from the epithelium of the cheek was studied (Dr. K. C. Samuel): "14% of the squamous epithelial cell nuclei show presence of sex chromatin mass and therefore the individual has male character."

In the light of the above it is justifiable to consider the case to be one of "uterus presenting in an inguinal hernia of a male."

I am grateful to Professor C. B. Singh for helpful advice, and to the superintendent of Lala Lajpat Rai Hospital for permission to report this case. I also thank Dr. K. M. Seth for following up the patient.

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